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Cambodia Reseach Final Report

**Does “Knowledge is power” work for the
prevention of dental caries in young children in
Cambodia?**

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Introduction

Cambodia is a beautiful and natural, but poor country located between Thailand and Vietnam. The country was severely destroyed during the Khmer Rouge years [1]. Not only were health care services eradicated but also dental services hardly remained running and only 34 dentists survived. A dental health survey in 1991 showed 9 years old children have more damage on primary teeth than permanent teeth and they had an average of 9.4 teeth decay [2]. The most recent study in 2002 by Oral Health Preventive School Program (OHPSP) showed 12-year-old students in Phnom Penh city, Cambodia had less DT (Decayed Teeth) than the Cambodia average and relatively low in mean MT (Missing Teeth) and mean FT (Filled Teeth). Only 20% of people indicated that they disagreed with donating money to schools for tooth brushes and tooth paste for their children for after-lunch hours in school [3]. Kep, where the research was taken place is a rural area located approximately 25km from Kampot and is so called “beach town”. The southwest beach town has a population of approximately 34,000 people in 18 villages [4]. This survey was created to investigate the level of knowledge of students about dental health, the dental environment around the area, and daily life style in Kep, Cambodia. In this study, I constructed a questionnaire to draw a correlation between the knowledge and the action, and tried to suggest the most effective way to educate them.

Materials and Methods

300 students 10-15 years old were randomly selected from two different schools and eight different classes in Kep. Schools were approximately 10km away from the University of Toronto International Health field station and selected because it's in close

proximity. 10-15 years old students were selected because they were able to read and answer all the questions properly in Khmer. In each class, sample questions were asked to verify the clarity of questions and students were told to take the questionnaire home and to finish them with their parents for the accuracy of answers. 26 questions were created as a questionnaire and were revised to clear and short sentences for better comprehension. Those questions were translated into Khmer for students to read and to answer, and were translated back to English for analysis. The questionnaires were reviewed by the Cambodian Ministry of Health's internal process prior to the conduct of the study. Students had 3 days to complete the questionnaires and small presentations on how to brush teeth were done as we collected the data.

Results

How much knowledge do they have?

Only 50% of students were brushing their teeth for more than 3 minutes. In addition, of the 83% who indicated that they know the prevention of dental caries, only 28% of them answered correctly and the rest of them either did not answer or answered it wrong. 60% of children were taught how to brush teeth by their parents and 18% of them were taught by each teachers and nobody at all. [Fig.1].

What kind of dental environment are they in?

Dental caries in families were quiet often as 62% of them had problems with teeth and the rest of them indicate no dental discomfort. Parents had the most dental cavities among the family members as 41% and brothers and sisters were the next as 21% [Fig.2]. 95% of students mentioned that they have dental products (tooth paste and tooth

brush) at home. Only 10% indicated that they have been to dental office more than 3 times. Among 41% of who have never been to the dental office, 55% said that they never had problem with teeth [Fig.3]. Only 20% goes to dental office regularly.

What is the best way to educate them?

Only 18% had TVs and they watched for 1.5 hours per day on average. 83% of them indicated that they spend time to help parent's work after school. At night time, 81% of students spend time on reading or studying, which involve books.

Conclusion and Future direction

The dental health in Kep is taken better care of than expected, but is still severe in condition comparison to other countries. Many students have heard about how to brush their teeth. However, it seemed they are not well educated, yet just overheard from somebody in somewhere. Most of the students who answered they know the prevention of dental caries provided wrong answers or only part of the proper treatment of teeth. Even though majorities do not acknowledge how to care dental health, minorities who are aware of it tend to learn it from their parents. Ironically, parents educate their children about dental care the most but simultaneously they have the most dental problems among family members. In addition, almost all the families have dental products. These prove that ignorance causes their poor dental conditions and lack of resources is not the main cause. Many of the students have never been to a dental office and only one fifth goes to a dental office regularly. It seems that parents are not fully aware of the importance of dental care. Among the three suggestions, Ads on TV, Classes in school, and publishing

books for kids to educate students, publishing books was considered to be the most effective way. Their lifestyles were almost simple and identical. Less than 20% have TVs and they spend much less time in school than at parent's work or at home. Students spend time mostly on helping parents and reading in their free time. Therefore, publishing well organized booklets on how to take care of teeth will provide substantial improvement on dental health in the community.

Researching on how much parents know about dental care and educating parents on the importance of it will be the next step to improve dental health in the community.

References

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3. Teng O, Narksawat K, Podang J, Pacheun O. Oral health status among 12-year-old children in primary schools participating in an oral health preventive school program in Phnom Penh City, Cambodia, 2002. *Southeast Asian Journal of Tropical Medicine & Public Health*. 35(2):458-62, 2004 Jun.
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Figure 1. Question 9: "How taught you how to brush teeth?" (22% of the students did not answer)

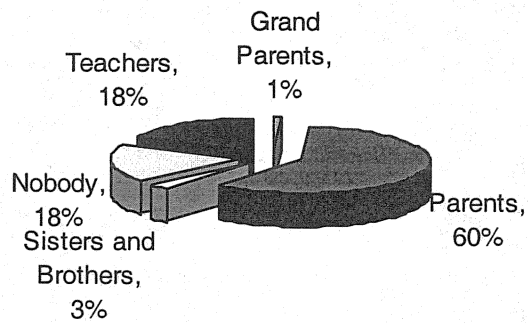


Figure 2. Question 13: "Do your family members have more, same or less number of cavities than you? If there is, who are they?" (41% of students did not answer)

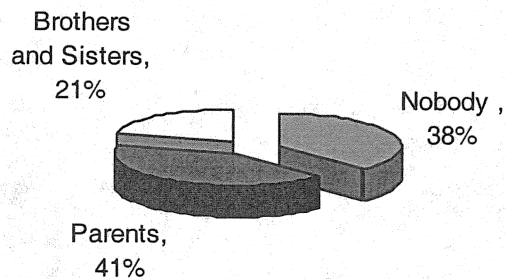


Figure 3. Question 16: "How many times have you been to a dental office?" (29% of students did not answer)

